Linear Algebra and its Applications, Spring 2013
Homework 4

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Note 1. This homework is due **8:30 am, October 8, 2013**. Please submit a hard copy into the homework box outside the TAs' lab.

Note 2. "Problem sets" and "Review exercises" should be found in the textbook (the fourth edition).

1. (10 points) Problem 4 in Problem set 2.5. Do this problem before you do the next one.

2. (5 points) Problem 3 in Problem set 2.5. Do this problem after you do the previous one.

3. (5 points) Problem 5 in Problem set 2.5.

4. (5 points) Problem 2 in Problem set 2.6.

5. (10 points) Problem 17 in Problem set 2.6.

6. (5 points) Problem 20 in Problem set 2.6.

7. (5 points) Problem 21 in Problem set 2.6.

8. (5 points) Problem 28 in Problem set 2.6.

9. (10 points) Review exercise 2.16.

10. (5 points) Review exercise 2.18.

11. (5 points) Review exercise 2.19.

12. (5 points) Review exercise 2.21.

13. (5 points) Review exercise 2.23.

14. (10 points) Review exercise 2.27. Note that $\mathbf{C}(A)$ on the textbook is $\mathcal{R}(A)$ on the slides. Note also that A may or may not be square and you need to indicate for each subproblem whether A is square, of more rows than columns, or of more columns than row, if any of these applies.

15. (10 points) Review exercise 2.29.